



## **Introduction: Draft 3 of the "Printer/Fax" MOU**

### **Background**

Over the past few months, EPA reviewed all comments and suggestions provided by the Program Partners. After careful consideration of industry feedback, EPA has completed Draft 3 of the "Printer/Fax" MOU Version 3.0.

In addition to Partner feedback, and to gain further insight into the many issues that were raised during the "Printer/Fax" meeting held in Washington, DC, on February 25, 1999, EPA reviewed product data-sheets, user's manuals, installation/set-up guides, environmental data-sheets, and other materials, including information on how various products are marketed and sold.

EPA believes its review of the available data and other information has been sufficient for the purpose of creating a Draft 3 that is fair, reasonable, and challenging. To be clear, Draft 3 incorporates some, but not all, of the feedback provided by the industry either through Partner comments or during the February 25 meeting. For some issues, EPA proposes no change from the current MOU and defers the discussion of these matters for future conversations with the Program Partners.

Finally, if necessary, EPA is willing to host a meeting in Washington, DC (location to be determined), to discuss any remaining issues immediately pertaining to completing MOU Version 3.0. Specifically, EPA is willing to discuss those issues that are contained in Draft 3, but not those issues that have been deferred for future consideration. EPA proposes the following meeting dates: September 8, 23, or October 1, 1999. If you are interested in meeting, please rank these dates by preference and send them via e-mail to Andrew Fanara (fanara.andrew@epa.gov) by Thursday, August 19.

### **Document Organization**

This document contains two major sections or attachments. The first section is titled "Summary of Changes: Draft 3 of the "Printer/Fax" MOU" (pages 2 – 5). This section provides a summary of the major changes and differences between Draft 3 (attached) and previous drafts of the MOU. The changes listed in the summary section are ordered sequentially by section number.

The second section of this document contains Draft 3 of the "Printer/Fax" MOU. Please note that in the body of Draft 3, EPA inserted additional remarks ("Comments" highlighted in *italic* type) that provide background information pertaining to EPA's rationale for certain changes. These notes will not appear in the final version of the "Printer/Fax" MOU. Also note that Draft 3 does not include Attachments A, B, or C (Logo Use Guidelines, Appointment of Liaisons, and Testing Guidelines, respectively). The final MOU will include these attachments.

Finally, to make onscreen viewing more convenient, this document contains a directory and internal links. Each link is highlighted in color. When you select a link, you will go directly to the relevant section of the MOU.



### **Summary of Changes: Draft 3 of the "Printer/Fax" MOU**

In order to provide Partners with a clear road map and to conclude the current MOU process, EPA proposes the following timeline and actions for resolving issues pertaining to MOU Version 3.0:

#### **Proposed Process and Timeline\* for Concluding MOU Version 3.0**

<b>DATE</b>	<b>Action</b>
Currently	Partners to review Draft 3.
September 1999	On or before this date, Partners to provide feedback to EPA on this MOU. If necessary, EPA to meet with Partners (either in person or via conference call) to resolve outstanding issues.
October/November 1999	On or before this date, EPA to revise MOU to incorporate final edits.
January 2000	Effective date of MOU Version 3.0

*\* Please note that this timeline contains approximate dates.*

EPA wants Partners to understand that in the event that an agreement on some issues cannot be achieved by the dates proposed above, then these issues will be reconsidered for inclusion in MOU Version 3.0 via an Amendment or in a new or revised MOU (Version 4.0). As such, EPA has included a mechanism in the MOU for reconsidering these issues. (See [Section III, point # 2](#) below, or [§III.E.](#) in the body of Draft 3.)

#### **Section I. Common Agreement and Principles** (In this section, EPA changed the following.)

1. EPA proposes modifying the last sentence of Section I.G. ([§I.G.](#))

#### **Section II. Definitions** (In this section, EPA changed the following.)

1. EPA proposes that Partners classify products based on their claimed and advertised speed. ([§II.E.](#)) EPA proposes that products should fit into the speed bands that correspond to the product's rated speed as claimed and advertised by the Partner (i.e., consistent with marketing and sales material). This proposal does not apply to Line Printers (i.e., dot matrix/impact printers).
2. EPA proposes using ISO 10561 for converting Line Printer speeds. ([§II.E.](#)) EPA proposes using this established method to provide a uniform basis from which these printers can be converted to pages per minute and properly classified in the MOU speed bands.
3. EPA has modified the last sentence of the Standby Mode definition. ([§II.H.](#)) For clarification purposes, EPA proposes a minor text change to the last sentence of this definition.

4. EPA has changed the term "Low-Power" mode to "Sleep" mode. (§II.I.) EPA changed the name of this power management mode and proposes some minor text changes. However, EPA has retained the spirit of the definition as it was proposed in Draft 2 when it was defined as the "Low-Power" Mode.
5. EPA added a definition for a "Standard Model". (§II.L.) Based on Partner feedback from the February 25, 1999 meeting, EPA is adding a definition for a standard model that incorporates the practice of marketing and selling bundled products.
6. EPA added the definition for a "wake event". (§II.M.) A "wake event" is a common event that networked products experience while in a power management mode. A "wake event" is not a new concept to the industry, particularly since many products enter and exit their power management mode while on the network. EPA added this definition to the MOU to recognize such events in a clear and consistent manner.

### **Section III. Entry Into Force and Duration** (In this section, EPA changed the following.)

1. EPA has retained the term "begins-to-ship". (§III.C.1. and §III.C.2.) The "begins to ship" term has been retained over the alternative "announces" term, because announcements occur in advance of the product's availability to consumers in the marketplace and do not always reflect the appropriate MOU specifications in effect at the time the product is available to consumers in the marketplace. Alternatively, the date that a Partner begins to ship a product is a clear and tangible date for determining the appropriate MOU specifications in effect when the product becomes available to consumers. Finally, on this issue, EPA wants to remain consistent with the new Computer and Monitor MOUs.
2. EPA has established a process and a timeline for discussing future changes to the MOU. (§III.E.) In lieu of setting Tier II specifications at this time, EPA believes that further MOU revisions should follow a process and timeline, which may result in new MOUs (e.g., MOU 4.0, etc.) In Draft 3, EPA proposes a process and a timeline that provide industry with clear direction for holding future MOU discussions.

### **Section IV. ENERGY STAR Partner Responsibilities** (In this section, EPA changed the following.)

1. EPA deleted the paragraph allowing a 10 percent increase in the Sleep Mode Watts for accessories. (§IV.E.)
2. EPA redrafted the section that addresses products that are connected to a network. (§IV.E.3.) The additional text clarifies what EPA and Partners already know about products that are connected to a network. This section does not introduce any new concepts nor does it change the specifications contained in the MOU.
3. EPA proposes an additional 5-Watts for a network card for products with speeds less than 21 ppm. (§IV.E.4.) For printers with rated speeds less than 21 ppm, that are sold with a network card as part of their standard configuration (i.e., bundle), an additional 5-Watts shall be added to the Sleep Mode values. If products with rated speeds less than 21 ppm do not include a network card as part of the

standard configuration, then the additional 5-Watts does not apply. EPA has determined that with few exceptions, most printers above 21 ppm typically are sold to and purchased for a workgroup or departmental — not a desktop — environment. As such, the network card is an integral part of these products and should be part of the overall power budget of the product (not an exception or an addition to the product's overall power budget).

4. EPA retained the Sleep Mode value of 75 Watts for the  $44 < \text{ppm} < 100$  speed band in Table 1. (§IV.E.5. Table 1) After careful consideration of Partner feedback, EPA's proposal to raise the Sleep Mode value from 45 Watts — as specified in the current MOU — to 75 Watts provides Partners with a suitable specification for including these higher-end products into the ENERGY STAR Program. A 75-Watt specification is challenging, achievable, will recognize a reasonable sub-set of the market, and does not favor any particular technology type.
5. EPA has removed the  $100 < \text{ppm}$  speed band in Table 1. (§IV.E.5. Table 1) After careful consideration of Partner feedback, EPA believes that developing the appropriate power management specifications for products in this speed range requires more time and research. Therefore, EPA will defer this issue to future discussions.
6. EPA has retained printer/fax combination units in Table 1. (§IV.E.5. Table 1) EPA has determined that the Sleep Mode Watts in Table 1 are appropriate for printer/fax combination units and that retaining printer/fax combinations in Table 1 does not cause these products to be disadvantaged (or penalized) with respect to their power budgets.
7. EPA added line printers that use 14 7/8" x 11" paper to the large/wide format category. (§IV.E.5. Table 2)
8. EPA proposes one large/wide format Sleep Mode specification. (§IV.E.5. Table 2) EPA proposes one large/wide format Sleep Mode specification at 30 Watts as specified in the existing MOU. Based on research and information provided by Partners, the existing 30 Watt value is more than reasonable for large and wide format printers that do not include, for example, functionally integrated units such as separate computer components.
9. EPA proposes a separate Table for "Laser" color printers. (§IV.E.5. Table 3) After careful consideration of Partner feedback, EPA proposes a two-speed band specification.
10. EPA re-designated the Table numbers for Stand Alone Fax and Mailing Machines. (§IV.E.5.)
11. EPA reduced the number of speed bands for Stand Alone Fax Machines from three to two. (§IV.E.5. Table 4) Although Draft 2 had three speed segments, EPA believes that at this time two speed segments appropriately categorize the stand alone fax market.
12. EPA proposes increasing the default time to Sleep Mode up to a maximum of 240 minutes. (§IV.E.6.) EPA's intention is to keep the power management feature enabled. With Partner support, expanding the default time for the Sleep Mode to a factory-set maximum of 240 minutes provides the end-user with additional power management flexibility that will avoid inconveniences.

13. EPA has removed the disablement of the power management feature from §IV.E of Draft 3. EPA originally proposed this provision in Draft 1 of the MOU based on a two-stage power management specification (i.e., a Low-Power Mode and a Sleep Mode). With the ability to extend the default time for the Sleep Mode to a factory-set maximum of 240 minutes, EPA, upon further review, defers to the existing MOU and has removed the disablement provision from Draft 3.
14. EPA has modified the language in the Customer and Employee Education sections. (§IV.F.2. and §IV.G.) After considering Partner feedback, EPA has incorporated proposed changes to the language addressing recycled paper content and training.



**DRAFT 3**



***Printer, Fax, Printer/Fax, and Mailing Machine Memorandum of Understanding Version 3.0  
between The United States Environmental Protection Agency  
and  
COMPANY NAME***

**I. Common Agreements and Principles**

- A. This is a voluntary agreement between [COMPANY] ("ENERGY STAR®<sup>1</sup> Partner" or "Partner") and the United States Environmental Protection Agency (EPA), by which [COMPANY] joins the ENERGY STAR Program. The terms of this MOU shall apply to printers, facsimile (fax) machines, combination printer/fax machines, and mailing machines sold by Partner under its own brand name(s).
- B. ENERGY STAR Partner and EPA agree that the primary purpose of the ENERGY STAR Program is to promote the use of energy-efficient products by consumers, thereby potentially reducing combustion-related air pollution.
- C. ENERGY STAR Partner and EPA agree that the use of energy-efficient products reduces household and other end users' energy bills and increases profits and competitiveness for businesses.
- D. ENERGY STAR Partner and EPA agree that the ENERGY STAR Program may also improve or enhance a product's useful lifetime, customer satisfaction, and overall product quality.
- E. ENERGY STAR Partner and EPA agree that publicizing the ENERGY STAR Program is important to demonstrate the following: the concern of Partner for the environment, the vitality of the free enterprise system in reducing costs, and the capability of voluntary programs to achieve environmental goals.
- F. ENERGY STAR Partner and EPA agree that maintaining public confidence in the ENERGY STAR Program is critical to achieving the shared goals of Partner and EPA.
- G. ENERGY STAR Partner and EPA agree that the integrity of the ENERGY STAR Office Equipment Program and the ENERGY STAR logo depend on consumer recognition of the ENERGY STAR logo as a means of identifying products, in a particular market, that are more energy-efficient than conventional products. Therefore, ENERGY STAR Partner and EPA will work together to revise the technical specifications as necessary. ENERGY STAR Partner agrees that EPA can initiate a review of compliance guidelines at any time, if necessary.

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<sup>1</sup> ENERGY STAR is a U.S. registered mark.

- H. ENERGY STAR Partner and EPA agree that membership in the ENERGY STAR Program is essential to the cooperative effort to achieve the shared goals stated above.

## II. Definitions

- A. Printer: Imaging equipment, manufactured as a standard model, that serves as a hard copy output device, and is capable of receiving information from single-user or networked computers. In addition, the unit must be capable of being powered from a wall outlet. This definition is intended to cover products that are advertised and sold as printers including printers that can be upgraded to a multifunctional device (MFD)<sup>2</sup>.
- B. Fax Machine: Imaging equipment, manufactured as a standard model, that serves as a hard copy output device whose primary function is sending and receiving information. Plain paper fax machines are covered under this MOU (e.g., ink jet/bubble jet, laser/LED, and thermal transfer). The unit must be capable of being powered from a wall outlet. This definition is intended to cover products that are advertised and sold as fax machines.
- C. Combination Printer/Fax Machine: Imaging equipment manufactured as a standard model that serves as both a fully-functional printer and fax machine, as defined in sections II.A and II.B above. This definition is intended to cover products that are marketed and sold as a combination printer/fax device.
- D. Mailing Machine: Imaging equipment that serves to print postage onto mail pieces. The unit must be capable of being powered from a wall outlet. This definition is intended to cover products that are advertised and sold as mailing machines.
- E. Print Speed: Pages per minute (ppm) measures the printing speed of a model. Print speed corresponds to the product's print speed as advertised by Partner. For Line Printers (e.g., dot matrix/impact printers), print speed is based on the method established in ISO 10561. This definition is intended to cover products that produce only monochrome output, as well as products that are advertised and sold as color or color capable.
- For mailing machines, pages per minute (ppm) are considered equivalent to mail pieces per minute (mppm).
- F. Accessory: A piece of additional equipment that is not necessary for the standard operation of the base unit, but may be added before or after shipping in order to enhance or change printer performance. Examples of accessories include finishers, sorters, additional paper supply devices, and duplex units. An accessory may be sold separately under its own model number, or sold with a base unit as part of a printer.

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<sup>2</sup> Note that once a printer base unit is upgraded to an MFD (for example, a photocopier unit is added), then the entire product must qualify according to the ENERGY STAR Office Equipment MFD MOU in order for the product to remain ENERGY STAR compliant.

- G. Active Mode: The condition (or mode) in which the product is producing hard copy output or receiving hard copy input. The power requirement in this mode is typically greater than the power requirement in standby mode.
- H. Standby Mode: The condition that exists when the product is not producing hard copy output or receiving hard copy input and is consuming less power than when producing such output or receiving such input. The transition from Standby Mode to Active Mode should cause no noticeable delay in the production of hard copy output.
- I. Sleep Mode: The condition that exists when the product is not producing hard copy output or receiving hard copy input and is consuming less power than when in a standby mode. In the transition from Sleep Mode to Active Mode, there may be some delay in the production of hard copy output, however there shall be no delay in the acceptance of information from a network or other input sources. The product enters this mode within a specified time period after the last hard copy output was produced.
- J. Default Time To Sleep Mode: The time period set by the Partner prior to shipping that determines when the product will enter the Sleep Mode. The default time shall be measured from the time that the last piece of hard copy output was produced.
- K. Duplexing: The process of producing text, an image, or a combination of text and image on both sides of a single sheet of paper.
- L. Standard Model: The term used to describe a product and its bundled features as marketed and sold by the Partner and as manufactured for its intended use.
- M. Wake Event: As used in this agreement, a "wake event" is defined as a user, programmed, or external event or stimulus that causes the unit to transition from its standby or Sleep Mode to its active mode of operation.

### **III. Entry Into Force and Duration**

- A. Both parties agree that any previously executed MOU between the parties on the subject of ENERGY STAR–compliant printers, fax machines, combination printer/fax machines, or mailing machines shall be terminated effective December 31, 1999.
- B. Both parties agree that the terms outlined in this MOU shall become effective on January 1, 2000. Partner may, at its discretion, choose to implement the specifications prior to this date.
- C. Both parties agree to the following schedule for phasing in the new specifications for the products contained in this MOU.
  - 1. Models that Partner "begins to ship" prior to January 1, 2000 may be qualified under Section IV.B of MOU Version 2.0. Once such models are qualified as ENERGY STAR–compliant, they may continue to bear the ENERGY STAR logo until the models are phased



out of the market, and as long as the Partner continues its participation in the program and the product model continues to meet the specifications under which it was originally qualified (i.e., new specifications will not apply retroactively to previously qualified products).

2. Models that ENERGY STAR Partner "begins to ship" on or after January 1, 2000 must be qualified under the new specifications outlined in Section IV.E of this agreement. However, Partner may choose, at its discretion, to implement the new terms of this agreement prior to January 1, 2000.

*Comments: EPA has always intended for products to meet the appropriate MOU specifications in effect at the time the product is available to consumers in the marketplace. EPA understands that when Partners announce products, they intend to ship or deliver those products within a relatively short time period after the announcement. However, an announcement date is in advance of the product's availability to consumers in the marketplace and does not always reflect the appropriate MOU specifications in effect at the time the product is available to consumers in the marketplace. Further, the "short time period" between the announcement date and the shipment date of a product is variable and arbitrary. As such, EPA does not view the announcement date as a suitable date for determining a product's compliance with the MOU specifications. Alternatively, the date that a Partner begins to ship a product is a clear and tangible date for determining the appropriate MOU specifications in effect when the product becomes available to consumers. In addition, EPA believes that the "begins to ship" date can be implemented consistently, objectively, and fairly. Lastly, EPA wants to remain consistent with the new computer and monitor MOUs, which specify "begins to ship".*

- D. Both parties agree that MOU Version 3.0 will remain in force until December 31, 2001. On January 1, 2002, MOU Version 4.0 will become effective per the conclusion of discussions between industry and EPA. At that time, Partner may choose to sign the new MOU and continue participating in the Program. Partners that sign the new MOU may begin qualifying products on or before January 1, 2002.

E. Both parties agree to the following timetable in order to develop MOU Version 4.0:

**Proposed Process and Timeline\* for Developing MOU Version 4.0**

<b>DATE</b>	<b>Action</b>
September 2000 –through– January 2001	EPA begins formal review of the Sleep Mode power specifications. Partners should submit proposals to interested parties prior to and during this time frame.
January 2001 –through– March 2001	EPA to convene Partner meeting(s) to discuss technological developments and proposals for MOU Version 4.0.
March 2001 –through– May 2001	EPA issues a Draft copy of MOU Version 4.0.
May 2001 –through– August 2001	Partners submit comments on Draft. EPA convenes Partner meeting(s) to discuss issues as necessary.
August 2001 –through– September 2001	EPA and Partners resolve remaining issues.
September 2001	Approximate Date EPA hopes to finalize MOU Version 4.0.
January 1, 2002	Effective date of MOU Version 4.0.

*\* Please note that this timeline contains approximate dates.*

F. Both parties agree that this agreement can be terminated or discontinued by Partner or EPA at any time, and for any reason, with no penalty. However, both parties agree that termination for noncompliance would only occur in accordance with the procedures of Section VII below.

#### **IV. ENERGY STAR Partner's Responsibilities**

A. Reading and Understanding Logo Use Guidelines

**ENERGY STAR Partner affirms that it has read, understands, and will abide by the Guidelines for Proper Use of the ENERGY STAR® Name and International Logo. (Attachment A)**

B. Appointment of Liaison

ENERGY STAR Partner agrees to appoint a responsible representative of the company as liaison with EPA for the ENERGY STAR Program for any of the following products: printers, fax machines, combination printer/fax machines, and mailing machines. Partner will notify EPA within one month of any change in liaison responsibility. **See Appointment of Liaisons. (Attachment B)**

C. Measuring and Testing Equipment

Power consumption shall be measured and tested from an AC source to the product. Partner must measure a representative sample of the configuration of all the models as they are

shipped to the customer. **See Testing Conditions For ENERGY STAR® Measurement Of Printers And Fax Machines. (Attachment C)**

ENERGY STAR Partner agrees to perform tests according to the criteria specified in this Section, as necessary, to determine which of its product models comply with the product specifications outlined in Section IV.E below.

Partner is responsible for only applying the ENERGY STAR logo to products (or product systems) that meet the ENERGY STAR criteria. Partner shall self-certify those products that it determines are compliant. Partner may submit compliant product information to EPA on a voluntary basis using the product information form, if it wishes to have such products included in the ENERGY STAR Product Listing.

**D. Number of Products Required**

ENERGY STAR Partner agrees to market during the duration of this agreement one or more product models with power requirements that do not exceed the specifications outlined in Section IV.E below.

**E. Product Qualification for the ENERGY STAR Logo**

1. ENERGY STAR Partner agrees that only those products that are capable of entering a Sleep Mode after a period of inactivity or maintain a level of power consumption at or below the levels of power specified in [Tables 1 through 5](#) (below), may qualify as ENERGY STAR compliant.
2. ENERGY STAR Partner agrees to set the product's default time to activate the Sleep Mode within the time specified in [Tables 1 through 5](#) (below) from the completion of the last incoming or outgoing job or from the last stimulus sent or received.
3. ENERGY STAR Partner agrees to qualify products as they are intended to be used (Section II.L. above) by the end-user, particularly products intended to be connected to a network. ENERGY STAR Partner agrees that all products marketed, advertised, or sold as network-capable must meet the ENERGY STAR specifications (below) when configured as network-ready (i.e., with a network card).
  - a) If the product is shipped with the capability to be on a network, it shall have the ability to enter a Sleep Mode while on the network.
  - b) If the product has the capability to be on a network, it shall retain in Sleep Mode its ability to respond to wake events directed or targeted to the product while on a network.

*Comments: Wake events are common events that a network product experiences while in a power management mode and on the network. A wake event is not a new concept to the industry, particularly since many products enter and exit their power management mode*

*while on the network. EPA and Partners are aware of the ability of networked products to successfully manage wake events. EPA incorporated points 3.a) and 3.b) into Section IV so that the MOU recognizes wake events in a manner that is clear to all interested parties.*

4. For printers and printer/fax combination units with rated speeds of less than 21 ppm that are sold with a network card included in the standard configuration (i.e., "bundle"), an additional 5-Watts shall be added to the Sleep Mode values for a network card.

*Comments: EPA has reviewed this issue at great length and has determined that with few exceptions, most printers with rated speeds greater than 21 ppm are typically intended to be used in a networked environment. Although the type of connection might be presented as an option to the end-user, products above 21 ppm are typically sold to and purchased for a workgroup or departmental — not a desktop — environment, which requires them to be connected to the network. As such, the network card is an integral part of these products and should be included in the overall power budget of the product, not an exception or an addition to the overall power budget. EPA is aware that there are a number of current products in the marketplace that include a network card and are able to meet the proposed specifications. EPA is also aware that this proposal will recognize a reasonable sub-set of the marketplace. Lastly, EPA believes that this specification is technology neutral.*

5. ENERGY STAR Partner agrees to qualify products according to the following specifications:

**Table 1: Tier 1  
Standard Size Printers and Printer/Fax Combinations\* (January 1, 2000)  
(designed to accommodate primarily A4 or 8.5" x 11" sized paper)**

Product Speed In Pages Per Minute (ppm)	Sleep Mode (Watts)	Default Time To Sleep Mode
$0 < \text{ppm} \leq 10$	$\leq 10$	$\leq 5$ minutes
$10 < \text{ppm} \leq 20$	$\leq 20$	$\leq 15$ minutes
$20 < \text{ppm} \leq 30$	$\leq 30$	$\leq 30$ minutes
$30 < \text{ppm} \leq 44$	$\leq 40$	$\leq 30$ minutes
$44 < \text{ppm}$	$\leq 75$	$\leq 60$ minutes

\* Including inkjet, dot matrix, and line printers.

Comments on Table 1:

1. After careful consideration, EPA believes that an additional 5-Watts should be allowed for products with rated speeds of 20 ppm or less that contain a network card as part of the product's standard configuration or bundle. If products with rated speeds less than 21 ppm do not include a network card as part of the standard configuration, then the additional 5-Watts does not apply. For products with rated speeds greater than 20 ppm, EPA views the network card as an integral component of the product. (See comments above: §IV.E.4.) As such, integral components are part of a product's overall power budget, not exceptions or additions to the product's power budget. EPA is aware of models, currently on the market, that include a network card and meet the specifications proposed in Table 1. Finally, EPA realizes that the above specifications will recognize a reasonable sub-set of the market.
2. Please note that EPA removed the  $100 < \text{ppm}$  speed segment and has retained the Draft 2 Sleep Mode proposal in the  $44 < \text{ppm} \leq 100$  speed band. EPA believes that these values are challenging, achievable, and will recognize a reasonable sub-set of the market, particularly in light of the current MOU specification of 45 Watts. EPA believes that a 75-Watt specification does not favor any particular technology type. Also note that the  $44 < \text{ppm} \leq 100$  speed band remains open ended (i.e.,  $44 < \text{ppm}$ ) as a result of removing the  $100 < \text{ppm}$  speed segment.
3. Printer/fax combination units have been retained in Table 1. After careful consideration, EPA believes that the Sleep Mode Watts in Table 1 are appropriate for printer/fax combination units. Further, EPA does not believe that retaining printer/fax combinations in Table 1 causes these products to be disadvantaged (or penalized) with respect to their power budgets. EPA is aware of a number of printer/fax combination units, currently on the market, that meet the proposed specifications in Table 1.

**Table 2: Tier 1**  
**Large/Wide-Format Printers (January 1, 2000)**  
**(designed to accommodate primarily 14<sup>7/8</sup>" x 11", A2 or 17" x 22", or larger paper)**

Sleep Mode (Watts)	Default Time To Sleep Mode
$\leq 30$	$\leq 30$ minutes

Comments on Table 2:

1. Please note that after careful consideration of Partner feedback, EPA proposes a single specification for products in Table 2 (above). The proposed specification is the same as the current MOU specification.
2. EPA believes that this value is appropriate for large and wide format printers that do not include, for example, functionally integrated units such as separate computer components.

**Table 3: Tier 1  
Color Printers (January 1, 2000)**

Product Speed In Pages Per Minute (ppm)	Sleep Mode (Watts)	Default Time To Sleep Mode
$0 < \text{ppm} \leq 6$	$\leq 30$	$\leq 30$ minutes
$6 < \text{ppm}$	$\leq 45$	$\leq 60$ minutes

*Comments on Table 3: After careful consideration of Partner feedback, EPA proposes a two-speed band specification. EPA is aware of numerous products that currently meet these specifications and believes the above proposal is fair, reasonable, challenging, technology neutral, and will recognize a reasonable sub-set of the market. EPA wants to be clear that its philosophy is to reduce the energy consumption of the Sleep Mode values where possible. The specification in the current MOU is 45 Watts. EPA views the current MOU specification (i.e., 45-Watts) as the starting point for discussions on reducing the energy consumption of the Sleep Mode values — not the starting point for increasing the energy consumption of the Sleep Mode values. If, in the future, new specifications are required to create new speed bands in this market segment, EPA will be willing to discuss such proposals for MOU Version 4.*

**Table 4: Tier 1  
Stand Alone Fax Machines (January 1, 2000)  
(designed to accommodate primarily A4 or 8.5" x 11" sized paper)**

Product Speed In Pages Per Minute (ppm)	Sleep Mode (Watts)	Default Time To Sleep Mode
$0 < \text{ppm} \leq 10$	$\leq 10$	$\leq 5$ minutes
$10 < \text{ppm}$	$\leq 15$	$\leq 5$ minutes

*Comments on Table 4:*

- Please note that after careful consideration, EPA has reduced the number of speed segments for stand alone fax machines from three to two. EPA believes that two speed segments categorize the stand alone fax market appropriately.*

**Table 5: Tier 1  
Mailing Machines (January 1, 2000)**

Product Speed In Mail Pieces Per Minute (mppm)	Sleep Mode (Watts)	Default Time To Sleep Mode
$0 < \text{mppm} \leq 50 \text{ mppm}$	$\leq 10$	$\leq 20$ minutes
$50 < \text{mppm} \leq 100 \text{ mppm}$	$\leq 30$	$\leq 30$ minutes
$100 < \text{mppm} \leq 150 \text{ mppm}$	$\leq 50$	$\leq 40$ minutes
$150 \leq \text{mppm}$	$\leq 85$	$\leq 60$ minutes

6. Default Times:

Partner shall ship products with the default time for the Sleep Mode set to the levels specified in Tables 1 through 4. The default time for the Sleep Mode shall be measured from the time the last piece of hard copy output was made. After shipping, the ENERGY STAR Partner, designated service representative, or customer may change the default times for the Sleep Mode, up to a factory-set maximum of 240 minutes.

*Comments: EPA's intention is to keep the power management feature enabled. With Partner support, expanding the default time for the Sleep Mode to a factory-set maximum of 240 minutes provides the end-user with additional power management flexibility that will avoid inconveniences.*

7. Duplexing:

For all standard-size printers above 10 ppm in which a duplexing unit is installed, it is recommended that ENERGY STAR Partner educate its customers about using their printers with duplex set as the *default* printing mode. Education may consist of information about the appropriate printer driver and print menu setup in the product manuals, or by providing specific instructions about the printer driver when a duplexing unit is installed.

F. Customer Education:

1. Identification of Qualifying Products in the Marketplace

ENERGY STAR Partner must ensure that consumers have a quick and easy method of determining which of the Partner's products are ENERGY STAR compliant. To achieve this goal, EPA recommends that the Partner place the ENERGY STAR logo on all qualified printers, fax machines, combination printer/fax machines, or mailing machines, their packaging, and product-related materials such as brochures, manuals, data sheets, and advertisements. EPA also recommends that Partner place the ENERGY STAR logo on all product-related materials published on the Partner's Web site.

2. Product Literature

Consumers must be able to identify and understand the energy-saving characteristics of the product models that Partner qualifies as ENERGY STAR compliant. Accordingly, Partner agrees to provide general information to users regarding the ENERGY STAR features of the qualifying products. EPA suggests including one or more of the following: a description of the ENERGY STAR Program, a discussion of the environmental and monetary benefits of the energy-savings characteristics of the product, and a description of the benefits of duplexing (e.g., reduced paper costs, decreased national energy consumption, and less paper in the waste stream). In addition, EPA recommends that Partner provide information about recommended types of recycled paper that can best be used in a particular printer, including the amount of post-consumer content in the paper.<sup>3</sup> Partner may determine the best manner to disseminate this information to customers.

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<sup>3</sup> As directed by Executive Order 12873, Part 5 – *Standards, Specifications, and Designation of Items*, §504.(a), the U.S. Government has specified a minimum of 30% post-consumer content (effective December 31, 1998) for all

G. Employee Education

ENERGY STAR Partner agrees to make available general information about the ENERGY STAR Program to all of its employees whose jobs are relevant to the development, marketing, sales, and service of ENERGY STAR–compliant products. Partner may determine the best manner to provide this information to its employees.

H. Information Sharing

At EPA's request, Partner will attempt to locate customers that have purchased ENERGY STAR–compliant products and are willing to share information about performance and savings. In addition, Partner will attempt to identify employees who have contributed to the Partner's success in the ENERGY STAR Office Equipment Program. This customer- or employee-supplied information is to be without reference or endorsement of specific Partner, specific products, or other supply sources.

I. Endorsement

ENERGY STAR Partner agrees that it will not construe, claim, or imply that its participation in the Program constitutes EPA approval, acceptance, or endorsement of anything other than Partner's commitment to the Program. Partner understands that participation in the ENERGY STAR Program does not constitute EPA endorsement of ENERGY STAR Partner or its products. In addition, since EPA will not officially approve any individual test reports submitted by Partner, Partner may not include misleading statements in product literature or sales presentations that imply a product is approved or certified by EPA. For example, Partner shall not make claims such as "This printer is EPA-approved," "This printer is EPA-certified," or any similar statement intended to convey an EPA endorsement.

J. Voluntary Actions

ENERGY STAR Partner agrees that the activities it undertakes connected with this MOU are not intended to provide services to the federal government and that Partner will not submit a claim for compensation to any federal agency.

**V. EPA's Responsibilities**

A. Appointment of Liaison

EPA agrees to designate a single liaison for the ENERGY STAR Program, and to notify Partner within one month of any change in liaison responsibilities. Please send the signed MOU and other correspondence to this person. **See Appointment of Liaisons. (Attachment B)**

B. Product Testing

EPA agrees to accept the certification by the Partner, whether it is self-determined or determined by an independent third party, that the Partner's qualifying product models satisfy the specifications set forth in this MOU. While this is a self-certifying process, EPA reserves

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paper purchased for government use. Partner may wish to include information on this or other types of recycled paper.



the right to conduct tests on products bearing the ENERGY STAR logo from either the open market or other available sources. EPA may request Partner to voluntarily provide products to be tested by EPA.

C. Consumer Acceptance

EPA agrees to make an effort to encourage consumer acceptance of products introduced under this agreement and bearing the ENERGY STAR logo.

D. Public Recognition

EPA agrees to provide Partner with recognition for its public service in protecting the environment by performing analyses about the pollution prevented by corporate participants, and providing this and other program information to appropriate news media sources for publication.

E. Consumer Education

EPA agrees to promote energy-efficient products, and to inform consumers about the ENERGY STAR Program and the ENERGY STAR logo by writing articles and/or by cooperating with the news media by sharing information, where appropriate.

F. Public Service Advertisements

EPA agrees to work with Partners to coordinate the placement of advertisements to promote energy-efficient products, educate consumers about the ENERGY STAR Program and logo, and provide Partners with due recognition for their public service in protecting the environment.

## VI. Use of the ENERGY STAR Logo and Name

A. Associating Logo with Qualifying Models

It is the responsibility of the Partner to associate EPA, the ENERGY STAR logo and name, and the ENERGY STAR Program only with those specific models that qualify under the terms and conditions of this MOU. **See Guidelines for Proper Use of the ENERGY STAR® Name and International Logo. (Attachment A)**

B. ENERGY STAR Materials

EPA agrees to loan Partner, at no charge, materials from which Partner can reproduce the ENERGY STAR logo.

C. Referring to the ENERGY STAR Logo

When the ENERGY STAR logo is used, Partner agrees that the following statement shall accompany the Logo: "As an ENERGY STAR® Partner, [COMPANY] has determined that this product meets the ENERGY STAR® guidelines for energy efficiency." When the ENERGY STAR logo is applied directly to the product or product packaging, Partner may place this statement in the user's manual. **See Guidelines for Proper Use of the ENERGY STAR® Name and International Logo. (Attachment A)**

D. Registered Marks

ENERGY STAR Partner understands that the ENERGY STAR® name and the ENERGY STAR logo are registered marks of the United States Environmental Protection Agency, and are subject to the provisions of Title 15, Chapter 22, United States Code, the various state laws applicable to trademarks, and this Memorandum of Understanding. As such, the Partner shall note this registered status, as appropriate. This includes: (a) expressing the ENERGY STAR name in all capital letters (It is also appropriate to use a slightly larger point size for the first letter of each word, e.g., twelve point for the E and S, and ten point for the other letters.), and (b) including the registered symbol, ®, *each time* the ENERGY STAR name or logo appears in a brochure, poster, advertisement, or other document (i.e., ENERGY STAR®). The registered mark statement “ENERGY STAR is a U.S. registered mark” may also be used *in addition* to the registered symbol to indicate the registered status of the mark. **See Guidelines for Proper Use of the ENERGY STAR® Name and International Logo. (Attachment A)**

E. Endorsement

Under no circumstances shall the ENERGY STAR name or logo be used in a manner that would imply EPA endorsement of the Partner, its products, or its services.

F. Altering Logo

ENERGY STAR Partner agrees not to alter the ENERGY STAR logo except in the ways described in the **Guidelines for Proper Use of the ENERGY STAR® Name and International Logo. (Attachment A)**

G. Termination of Agreement

If either EPA or Partner terminates this Agreement, Partner will no longer be entitled to apply the ENERGY STAR logo to newly manufactured products, and will no longer make reference to the ENERGY STAR Program so as to construe continuing involvement in the program. Any products bearing the logo that have been shipped by the Partner prior to program termination, and are no longer in the Partner’s possession (e.g., products on display or inventoried by retail stores or distributors), may continue to bear the logo.

## VII. Conflict Resolution

A. Good Faith Principle

Each party agrees to assume good faith as a general principle for resolving conflicts under the ENERGY STAR Program.

B. Notification of Problems

Both parties agree to notify each other informally if any problems or issues arise and to work together to provide maximum public confidence in the program.

C. Procedure for Addressing Non-Compliant Products

1. If EPA receives information that one or more products certified by Partner as ENERGY STAR-compliant may not meet all of the terms of this MOU, then EPA will immediately notify Partner and attempt to address and resolve the problem informally.

2. If these informal discussions do not produce a mutually agreeable resolution, EPA shall notify Partner in writing that Partner shall be terminated from the ENERGY STAR Program unless it undertakes the specific corrective actions sought by EPA. Partner agrees to reply to EPA in writing within 20 business days of receiving EPA's letter. At that time, Partner shall agree to do one of the following: (a) undertake in a timely and effective manner, the corrective actions sought by EPA; or (b) voluntarily terminate this agreement. If Partner does not respond to EPA's letter within 20 business days, or responds but does not agree to either (a) or (b), then this agreement is terminated.

D. Notification in Writing

If ENERGY STAR Partner believes that EPA is not meeting all of its commitments, Partner agrees to notify EPA formally in writing. EPA agrees to respond in writing within 20 business days of receiving ENERGY STAR Partner's letter. At that time, EPA will do one of the following: (a) undertake the corrective actions sought by Partner, or (b) explain why such corrective actions cannot be undertaken.

**VIII. Freedom of Information Act and Confidential Business Information**

Both parties understand that information provided by Partner to EPA will be treated pursuant to EPA's public information regulations under 40 Code of Federal Regulations, Part Two.

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